

SWBAT: compare light and sound

Jan 4-7:20 AM

Concept Sheet

~ 7 rows when we're done...

We'll fill in two terms (rows) today.

Concept	Meaning	Sym-bol	Units	Picture
<div>PITCH →</div> FREQUENCY	HOW MANY PER UNIT OF TIME $FREQ = \frac{\#}{TIME}$	f $f = \frac{1}{T}$	hertz $Hz = \frac{1}{sec}$	
PERIOD	HOW MUCH TIME FOR ONE. PERIOD = $\frac{TIME}{\#}$	T $T = \frac{1}{f}$	Seconds sec.	
	TRANSVERSE: WHEN THE MEDIUM VIBRATES ACROSS THE DIRECTION THE WAVE TRAVELS.			
	LONGITUDINAL: WHEN THE MEDIUM VIBRATES ALONG THE DIRECTION THE WAVE TRAVELS.			
<div>INTENSITY →</div> AMPLITUDE	HOW FAR FROM THE MIDDLE.	A	meters m	
WAVELENGTH	HOW FAR FOR ONE "BACK & FORTH"	λ	meters m	
WAVESPEED	DISTANCE OF A WAVE TIME OF A WAVE $V = \frac{\lambda}{T}$	V $V = \lambda \cdot f$	meters second m/s	

Feb 18-6:50 AM

Welcome!!!

H. Leslie Grebe

SECA Physics
Thursday 14 May 2015

- * Pick up:
 - slip of paper (for later)
 - worksheet



Opening Question:

So, light is a wave too? How does it compare to sound?

Opening Activity:

Outrageous Acts of Science

Centering

Sep 7-7:04 AM

Outrageous Acts of Science

A show about viral videos and the science that makes them possible...

"Shredding Speakers" Power Junkies #4

1. Just watch
2. Read the questions
3. Watch again
4. Discuss
5. Watch a last time to catch anything you might have missed



Oct 4-7:27 AM

Seeking information

* Work as a table / group of 2-3

* Use books and each others' brains

internet?

* It's okay to guess and/or be wrong as long as you're thinking

	SOUND	LIGHT
TRAVELS THROUGH	<ul style="list-style-type: none"> - AIR - METAL/SOLID - WATER 	<ul style="list-style-type: none"> - AIR - WATER - GLASS
	NEEDS SOMETHING 'A MEDIUM'	THRU NOTHING EMPTYNESS

May 11-7:32 AM

	Sound NEEDS A MEDIUM	Light DOESN'T
Frequencies	PITCH	COLOR
Reflected	YES - ECHOES	YES - MIRRORS
Speed	AIR: 346 m/s	AIR: 3×10^8 m/s "300,000,000 m/s" MUCH FASTER!
Range	20 Hz - 20,000 Hz	400-700 nm "VISIBLE" (UV)

<http://hypertextbook.com/facts/2003/ChrisDAmbrose.shtml>
<https://www.youtube.com/watch?v=2G9Q-r2leyw>

May 23-8:21 AM

Daily 3 Questions

- * Every day except test/project days
- * 3 Questions on the topics of the day
- * Main source of daily points
- * I am happy to give credit when I have no concerns about someone giving or getting help with the answers.

CP: 2 higher-order notes
questions due Mon 5/18

You can't get your points if you don't have your NAME!!!

Name	Period
1.	
2.	
3.	

Sep 9-7:32 AM

1) Which travels faster?

- a) sound
- ☒ b) light
- c) they go the same speed

2) Which can travel through nothing-ness?

- a) sound
- ☒ b) light
- c) they both need a medium

3) Which can be reflected?

- a) sound
- b) light
- ☒ c) both
- d) neither

Apr 25-7:25 AM